

## ABSTRACT

5       The present invention provides an apparatus, system and method for receiving asynchronous transfer mode (ATM) data cells on an ATM adaptation layer (AAL) configured connection within an ATM system comprising a digital signal processor (DSP) sub-system (412) and a host processor (414). The receiver interfaces directly with the DSP sub-system (412) (which converts the digitized voice samples into voice signals) and the host processor (414) (which performs AAL2 signaling and layer management functions). The receiver filters the AAL2 signaling and management packets from the AAL2 voice packets using a host programmable CID filter (550) and UUI filter (560). A match from either filter (550,560) enables the packet to be forwarded to the host processor (414). If no match is made in either filter (550,560), then a look-up is performed in a receive CID look-up table and the packet is forwarded to the DSP sub-system (412) on a look-up match.